

Precision

MAY 1968

Vol. 12 No. 1

Fifty Cents

SHOOTING



In This Issue:

Instructions For Using Chamber Reamers

Effect of Mirage on Point of Impact

U.S. Expects to do Well
In Olympic Shooting

*a magazine
for shooters
by shooters*

BENCH REST

Shooting Primer

Should one be inquisitive about the sport of Bench Rest Shooting, but doesn't know how to start, he should read these instructions: 1. Obtain an Official Rule Book from NBRSA Headquarters, Mrs. Bernice E. McMullen, 607 West Line St., Minerva, Ohio 44657. 2. At the same time, send her \$8.00 for one year's membership. Anyone will save money by doing this, if he attends more than three registered matches a year. 3. From this Rule Book, a shooter will be able to choose the class of Bench Rest Shooting he prefers. 4. Pages two, three and eighteen describe the rifles and their limitations.

The act of Bench Rest Shooting consists of sitting at a bench with a rifle resting on sand bags. The object of this position is to eliminate, as much as possible, the errors encountered in the process of holding and firing a rifle. Bench Rest Shooting is a **sport**, competitive or individual. The personal satisfaction gained in the ability to place one bullet on top of another, thus making a one hole group at 100 Yards and often at 200 Yards, has captivated an enthusiastic interest of many shooters for this kind of sport. It is particularly suited to both men and women who are not interested in indulging in the more vigorous or active sports. Therefore many Bench Rest Shooters are of the older set.

This does not mean, however, that it does not present a challenge to the younger shooter; it will engage and tax his capabilities as well.

The current popularity of this kind of shooting was generated by the organization of The National Bench Rest Shooters Association in the years 1949 and 1950. At that time a competitive program was introduced and has since been expanded.

Once an individual has selected the most appealing Bench Rest Class, it is **very important that he attends some of the Matches**. Here he will learn much by asking questions, observing the equipment and methods used for loading and shooting. Any Bench Rest Shooter is more than anxious to help a newcomer.

The equipment needed to participate is available, for the most part, from PRECISION SHOOTING advertisers. It includes rifles, telescopes, rests, sand bags, loading tools, bullets, cleaning materials, powder, primers, etc.

Lastly, if possible, get the advice of a person in the game before making purchases.

Should an individual or a club wish further information, write to Dr. A. H. Garcelon, President of the NBRSA, 133 State St., Augusta, Maine 04430; or M. H. Walker, R.D. #1, Mohawk, N. Y. 13407; or the Editor of PRECISION SHOOTING.

PRECISION SHOOTING

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8 Cline Street
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President — MERLE H. WALKER

Vice-President — DERMOT C. REILLY

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NOTICE TO ADVERTISERS

PRECISION SHOOTING is printed by letterpress. Display cuts are to be furnished by the advertiser. Advertising engravings will be made at standard rates if good black and white glossy prints are provided. Displays will be made to Advertiser's specifications. All normal composition will be set according to our own standards. Rate cards will be mailed to Advertisers on request.

Front Cover

"R.E.K. WOODCHUCKER"

The rifle belongs to Robert E. Keel of South Bethlehem, N. Y. It began as a beat-up Winchester high sidewall action that required a complete work-over in order to be salvaged at all. It took nearly 10 years, on and off, to build. First it was intended to be a 6 mm on a Donaldson Wasp case, but ended up as a 6 mm x 49 (6 mm 225 Win), this being a more standard cartridge.

All of the basic metal work except the scope rib is by the owner; that is, barrel turning, fitting, chambering, action alterations and stock thru bolt arrangement.

The flat main spring and fore end attachment is conventional. The barrel is 14" twist chrome molly with a straight taper from 1" at breech to 3/4" at muzzle. The barrel is 26" long. Rifle complete without scope weighs about 8 lbs.

The stock and fore end are made from left over pieces of Parker Hale Brothers European walnut obtained from Frank LeFever years ago. This part of the work was completed in the early 60's by Jack Holmes, then from Northville, N. Y. It represents his usual perfection of design and truly hairline inletting.

The scope rib, finish, checkering and hand engraving is by Cape Cod artist, John Warren, master of line and restraint. The rifle was completed in Dec. 1967.

Accuracy is in the order of 3/4" MOA plus, using 42 grains of 4895 and 75 grain Sierra H.P. It is topped with a ten power Lyman Junior targetspot.

— Woodchucker indeed. —

PRECISION SHOOTING MAY '68

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NBRSA

1968 Match Schedule

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Augusta, Maine 04330
Mayfair 2-1711

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Mohawk, New York 13407
Area Code 315, 866-5798

Wm. Kappel (Deputy)
212 Wayne Ave.
Haddonfield, N. J. 08033
Area Code 609, 429-4920

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Phones:

Area Code 501, 623-1812

or

Area Code 501, 623-5908

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Secretary-Treasurer

Bernice E. McMullen
607 West Line Street
Minerva, Ohio 44657
Area Code 216, 868-6132

PRECISION SHOOTING MAY '68

EASTERN REGION

AUGUSTA, OHIO — Apr. 20, 21 Open and H.V.; May 11, 12 Open and H.V.; July 20 (night) Open and H.V.; Aug. 27-30 Open National Championship; Sept. 21 (night) Open and H.V. Reeds Run Rifle Range, Marie Brown, Box 66, Augusta, Ohio 44607.

EASTON, OHIO — Oct. 5, 6 300 Meter Open and H.V. Chippewa Rifle Club, Nelson Berger, Marshallville, Ohio 44645.

FASSETT, PENNA. — June 22, 23 All Varmint; July 13, 14 All Varmint; Aug. 16, 17, 18 All Varmint—Eastern Region Championship. South Creek Rod & Gun Club, Gerald Arnold, 107 South Kenyon St., Elmira, N. Y. 14904.

GREENVILLE, MICHIGAN — June 8 Open and H.V.; July 6, 7 Open Eastern Region Championships; Sept. 7, 8 Open and H.V. Flat River Conservation Club, Roger L. Powers, 509 Van Deinse Ave., Greenville Mich. 48838.

JOHNSTOWN, N. Y. — June 15, 16 Open and H.V.; Sept. 14, 15 All Varmint, N. Y. State Championship. Sec'y Pine Tree Rifle Club, Johnstown, N. Y. 12095.

WAPWALLOPEN, PENNA. — June 1, 2 Open and H.V.; Sept. 28, 29 Open and H.V. Council Cup Rifle Range, Robert W. Hart, 332 Montgomery St., Nescopeck, Pa. 18635.

GULF COAST REGION

GRAND PRAIRIE, TEX. — May 11 Bench Rest, Combined G.C. Region & TBRSA Championship; May 12 Light Varmint Region Championship; July 5 Light Varmint Speer Matches; July 6 Heavy Varmint Speer Matches; July 7 Bench Rest Speer Matches; Oct. 12 Sporter, G.C. Region Championship; Oct. 13 Heavy Varmint, Combined G.C. Region and Grand Prairie Championship. Ed Shilen, 4510 Harrington Road, Irving, Texas 75060.

MIDLAND, TEX. — June 15 L.V., TBRSA Championship; June 16 H.V., TBRSA Championship; August 17 Sporter, TBRSA Championship; Aug. 18 Hunter, TBRSA Championship (TBRSA Rules).

DON'T FORGET

MONTHLY CLUB SHOOT

LTV ELECTROSYSTEMS GUN CLUB — Contact Jim Ridings, 606 Turtle Creek, Greenville Tex. 75401.

GRAND PRAIRIE GUN CLUB — Contact Ed Shilen, 4510 Harrington Road, Irving, Tex. 75060.

PERMIAN BASIN RIFLE AND PISTOL CLUB—Contact Tom Abernathy, P.O. Box 459, Midland, Tex. 79701.

ROCKDALE GUN CLUB—Contact Dalton R. F. Harbers, P.O. Box 267, Lexington, Tex. 78947.

CANYON GUN CLUB — Contact Gene Bowlin, 404 29th St., Snyder, Tex. 79549.

MID-CONTINENT REGION

KANSAS CITY, KANSAS — June 8 Open and H.V.; Oct. 5 Open and H.V. Mid-Continent Region Championship.

TULSA, OKLAHOMA — May 19 All Classes; June 22 (night) All Classes; July 14 All Classes; July 30 - Aug. 2 National Varmint Championship.

WICHITA, KANSAS — Apr. 27 All Classes (3 P.M.); Aug. 17 All Classes, Kansas State Championship; Oct. 26 All Classes (3 P.M.).

For further information contact David B. Whittington, 462 W. Grand Ave., Hot Springs, Arkansas 71901. Phone 501-NA3-1812 or 501-NA3-5908.

MISSISSIPPI VALLEY REGION

ST. LOUIS, MISSOURI — Apr. 20, 21 Open and L.V. and Sporter; May 18, 19 All Varmint; June 8, 9 Open and All Varmint; Aug. 10, 11 Open and L.V.; Sept. 15 H.V. Bench Rifle Club of St. Louis, Arthur J. Freund, 1038 Hornsby Ave., St. Louis, Mo. 63147. Phone 314-EV8-2718.

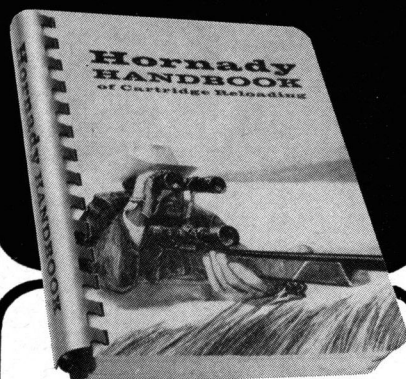
NORTH CENTRAL REGION

IOWA FALLS, IOWA — May 25 H.V. (night); May 26 Sporter (9 A.M.); June 22 Sporter (night); June 23 H.V. (9 A.M.); July 20 H.V. (night); July 21 Sporter (9 A.M.); Aug. 17 Sporter (night); Aug. 18 H.V. (9 A.M.); Sept. 21 H.V. (Night); Sept. 22 Sporter (9 A.M.). Lee R. Boddy, Iowa Falls Gun Club, Iowa Falls, Iowa 50126. Phone 515-648-2865.

NOTE

Clubs are urged to report match results promptly to NBRSA secretary's office as well as to PRECISION SHOOTING.

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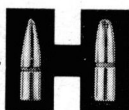
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Letters to the Editor

1038 Hornsby Avenue
St. Louis, Missouri 63147
April 16, 1968

Mr. Emory Tooley
Editor, Precision Shooting

Mr. Tooley:

As regional director of the Mississippi Valley Region of the N.B.R.S.A. and as chairman of the Match Scheduling Committee of the Benchrest Rifle Club of St. Louis, I wish to answer a letter written by a Mr. Larry Coon which was published in the January issue of **Precision Shooting Magazine**.

Mr. Coon's statements and observations for the most part are either incorrect or untrue. The most damaging statement he made, I quote: "The last match in which I fired was won by a gentleman using a cal. 6.5 x 284 with a Douglas Stainless Steel barrel on a single shot FN bench rest action. Is this a hunting rifle? I think not."

Now let's get down to facts. The last match in which Mr. Coon fired was held July 22, 1967 and was won by a Mr. Arthur C. Schroeder II who was shooting a 700 Rem. Rifle in 300 Win. Mag. caliber with a Rem. barrel. This is the information on his registration card and can be verified by the range officer and referees at the match. Mr. Schroeder's rifle was a standard factory rifle and legal in every respect.

As a point of interest the previous match in which Mr. Coon fired was held May 28, 1967. This match was won by a Mr. James Butler who was shooting a 30-06 Springfield with a G.I. barrel and a 4x Weaver scope. Does this sound like illegal equipment for the Hunter Class Rifle? By the way, Mr. Butler had a score of 246-10 x's.

Now to get to the match I think Mr. Coon is referring to in his letter. This match was won by a Mr. A. Phillip Broderick which was the first match of the season fired April 9, 1967. Following is an accurate description of his rifle which can be verified by the range officer, referees, and shooters present at the match. This rifle was made on a Remington 722 action, has a magazine which holds two cartridges. It is chambered for a 6.5 mm X.308. Mr. Broderick was shooting a 100 gr. Sierra bullet with 42 grains of 4320. This more than met the minimum case capacity. About the only part of the description about this rifle Mr. Coon had correct was the fact that it was stainless steel barrel—the Douglas part is wrong. It was really a Hart barrel installed by Tom Gillman.

I discussed this matter with Mr. Broderick and he informs me that he had his Heavy Varmint Rifle on his bench with a 20X Lyman scope on it which he was using to spot his shots. This rifle is made on a single shot Shilen Action, not an FN Mauser single shot action that Mr. Coon described. Perhaps Mr. Coon assumed this was the rifle Mr. Broderick shot in the match. Mr. Vincent Dillon, the Statistical Officer for the Benchrest Rifle Club, has all the score sheets and registration cards for all the Hunter Rifle matches held at our range. They are in his possession and are available for Mr. Coon's inspection or anyone else who may be concerned enough to wish to see them.

The last two matches of the season were won by a Mr. Adrian Balkenbush using a Sako Forester Action, with a Hart barrel chambered for 244 Remington; this rifle has a full magazine and in every way meets the N.B.R.S.A. limitations for this class. Mr. Balkenbush won these two matches but he didn't walk away with them as the scores were very close. I really believe Mr. Coon feels that equipment alone wins benchrest matches. I feel sure he is due for a rude awakening when and if he shoots in the Heavy Varmint Rifle Class as he proposed to do in his letter.

We here in St. Louis have gone all out for the Hunter Class matches and have always run our matches fairly and probably have been overzealous in seeing that the rules are followed, rather than being lax enough to allow such a rifle as Mr. Coon describes to fire in one of our Hunter Class matches.

Up until 1968 we have held two separate matches to please the competitors—one for iron sight shooters and a separate match for scope. This made for extra work for the people running the match, as separate scores had to be kept and extra expense was incurred for iron sight trophies and special targets. The question arises: Why not shoot the iron sight and scope sight matches simultaneously? We did not because a few of the shooters wanted to shoot both iron sight and scope classes.

I wish to take this opportunity to advise all shooters who compete in matches, that the time and place to register any complaint or protest is at the time one feels a violation is being made. Let the range officers and referees hear your complaints; most of the time it can be straightened out right then and there. If not, then protest by letter to the Regional Director, rather than by writing a letter to the editor of **Precision Shooting Magazine** which has little or no factual verification behind it.

For the year 1968, we have had special 200 yd. Hunter Class targets printed, which is a target just double in size of the N.B.R.S.A. Hunter Class Target. It only contains two bulls, one for sighter and one record target. It worked out very well at our first match this season and the shooters found it much more difficult to make the same scores at 200 yds., which they averaged at 100 yds. shooting in this class. We here in St. Louis had no obligation to have 200 yds. shooting in this class, but we are willing to go to extra trouble and expense to please the shooters and to have a good Hunter program. As Regional Director, I have offered to pay the registration fee for the first Hunter match for any new shooter who may wish to enter. This is an invitation to any N.B.R.S.A. member to come to St. Louis and shoot in our Hunter Class Match and judge for himself how we operate our matches.

Sincerely yours,

Arthur J. Freund

Regional Director,

Mississippi Valley
N.B.R.S.A.

PRECISION SHOOTING MAY '68

Mr. Emory Tooty, Editor
Precision Shooting
8 Cline St.
Dolgeville, N. Y.

Dear Mr. Tooty:

Through your good offices I am receiving back issues of **Precision Shooting**, which I missed when my subscription expired without my knowledge. Some time ago I sent two dollars to Jefferson Ackor to cover these issues, before I knew he was no longer the editor.

Just received a couple of issues, including a second copy of the Nov. issue. It is being returned to you with this letter, perhaps for someone who thinks they are as valuable as I do — which is considerable.

I do not know which month the latest issue is, but my count last night shows I have up to and including the Feb. issue, but nothing after that. So, if you have not already sent the March, and April if it is ready, I would be grateful for them.

The Feb. issue starts a series by Walker, on basics of shooting, which, in my opinion, will go a long way to get more readers and members. I sure hope he keeps writing on this theme. I get comments from many shooters out here, especially at the ranges, about the almost total lack of really good material in the general gun magazines. Walker's subject matter is what they are looking for because it is in many respects better than a coach alongside each shooter. I think this is true because he knows so very much about it.

Being a writer of sorts myself (an elk hunt story in Wyoming is in the current issue of *Gun World*) my intention is to submit something to you on my experiences with a sleeved Shilen .222 Rem. — as soon as I get settled down to consistently small groups.

Good luck with your new job. Hope you like it.

Sincerely,
Erik Miller
3680 Dixie Canyon Ave.
Sherman Oaks Calif. 91403

SOUTH CREEK REPORT

The winter matches at South Creek are over. They began on January 21st and continued through April 21st, eight matches in all, ending with a banquet at Masia's with 43 attending. Three trophies were awarded. One to Emma Jane Stocum for the smallest 5-shot group fired during the eight matches. Emma Jane is a new shooter; in fact this was her first season in competition, and her group measured .127.

The second trophy went to Wally Hart for the smallest Grand Aggregate, which was figured on the best five out of eight aggregates. This score was .4155.

The third trophy also went to Wally Hart for the smallest single aggregate fired during the eight matches, and this score was .2932.

We had a total of 245 shooters participating during eight matches, which is better than a 30 average per match.

South Creek was very happy to be the Host Club for these matches, which were held strictly for the enjoyment of the shooters. One-half the entry fee was paid back to the shooters at each

(Next page please)

PRECISION SHOOTING MAY '68

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Redfield

5800 East Jewell Ave., Denver, Colorado 80222

Who shoots SIERRA BULLETS?

John H. Bunch, of course!

He fired a .135" group from 100 yds. and .263" from 200 yds. to win the 1967 Club Bench Rest Championship at Grand Prairie, Texas.

J. E. Ridings, director of the Club, made this comment: "While many bullet companies illustrate small groups shot with unrestricted 'iron monsters' in underground test tunnels, it should be noted that these targets were shot with a heavy varmint class rifle, in a competitive match outdoors on an extremely difficult range."

Mr. Bunch says: "...the bullets were shot directly from the box, although I have a bullet indicator I feel no need to spin the 53 gr. Bench Rest Sierra Bullet."



**SIERRA
BULLETS**

10532 S. Painter Ave. • Santa Fe Springs, Calif.

match in prize money. The balance was used for the Banquet, Trophies, and general expense of the matches.

The shooters were allowed to use any rifle, any sight, and the only restriction was 13½ pound weight limit.

The matches were all fired at 100 yds. from six firing points through the windows from inside the clubhouse. Each

match consisted of six targets, one warm-up and five 5-shot groups for record.

We wish to thank Norm Fahr for his fine work in planning and conducting these matches, and all others who helped in any way to make them such a success.

Laura B. Andrews, Secy.
South Creek Rod & Gun Club
RD #1, Millerton, Pa. 16936

SOUTH CREEK ROD & GUN CLUB WINTER MATCHES 1968

	1-21	2-4	2-18	3-3	3-17	3-31	4-7	4-21	Gr. Agg.
1. W. Hart	.599	.453	.4772	.4878	.5468	.5114	.3664	.2932	.4155
2. J. Arnold	.771	---	.5648	.6288	.4788	.3770	.3130	.3544	.4175
3. J. Stekl	---	---	---	.4386	.4968	.4680	.3876	.4146	.4411
4. R. Hart	.5912	.481	.6862	.9990	.4012	.4602	.4962	.5032	.4683
5. A. Blensinger	.598	.699	.5850	.7736	.5508	.4782	.4044	.3474	.4731
6. D. Hall	.546	.999	.5448	.6956	.4564	.4568	.4064	---	.4820
7. J. Deming	.883	.559	.6416	.5902	.5284	.4660	.4578	.4434	.4909
8. G. Stickler	.784	.727	.7730	.7436	.5236	.4762	.3724	.3576	.4913
9. G. Green	---	---	---	.8536	.4444	.3752	.4792	.3948	.5094
10. A. Glover	.657	1.256	.7750	.7728	.6802	.5332	.4204	.3730	.5327
Last Place									.9913

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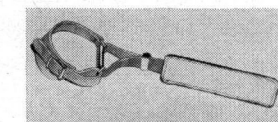
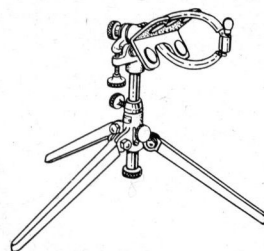
SBR-1 Standard
Benchrest Stand
W/3 sandbags -----23.50



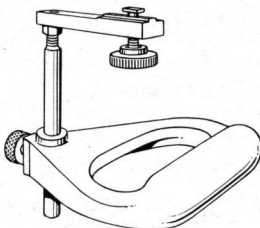
FSA Jumbo Type Fore
End Stop, mention
rifle -----5.75



AAT All Angle Tripod,
mention scope, gray
or green -----20.75



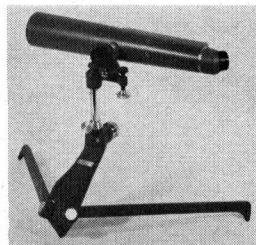
186 Midcentury Cuff
Combination -----10.00



#1 Standard MR Cairo
Palm Rest, aluminum 21.50



Freeland Sling Keeper,
a fine necessity -----1.50



ZB Zoom Bipod, gray
or green -----23.75

ZT ZOOM AA Tripod for ZOOM
SCOPE lug -----20.75
SWISS TYPE WOODEN "grooved"
Palm Rest, mention rifle -----21.50
FSB JUMBO fore-end stop Q/WD
swivel & stud, mention gun -----9.50
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MORE

About The Cover OF JANUARY ISSUE

By DR. A. H. GARCELON

The former editor asked those interested to do a little guessing about the gun and accouterments on the January 1968 cover.

There have been several dozen letters received. The old timers and those interested in single shot rifles were the closest to being correct. One such letter came from M. G. Stokenberry of 1401 Santa Rosa, Tyler, Texas 75701. His guess was almost exactly on the nose.

The January cover rifle was a Ballard #6 action rebarreled by Harry Pope in 28-30 caliber, and one of the favorites of the earlier SCHEUTZEN shooters.

The rifle is equipped with an aperture front sight (adjustable for windage) and a Pope vernier rear sight. It has scope blocks, a Scheutzen butt plate and double set triggers.

One should note the "fish belly" type of butt stock. It is typical for the period.

This weapon can be fired either as a muzzle loader or breech loader. It has been my experience that muzzle loading the bullet produces the more accurate groups.

Another point that should prove of interest to bench shooters is that these rifles give the best results when the barrel is rested on the sand bag.

Lastly, every Pope that I own or have owned has been superbly accurate even by today's standards of target shooting.

1401 Santa Rosa
Tyler, Texas 75701
April 8, 1968

Editor
PRECISION SHOOTING Magazine

Dear Sir:

I note with interest your picture of the Ballard single shot rifle on the cover of the January issue of your magazine. The Ballard was in production from approximately 1861-1890. I am of the opinion that this is a Ballard Scheutzen rifle, a number six, and was definitely manufactured by the Marlin Firearms Company between 1875 and 1890. I have never seen one with the lever exactly like this one (spur with loop lying close to pistol grip). Also, the barrel leads me to believe that it might possibly be a replacement (Pope?) as I do not feel the target blocks are original.

I am not absolutely sure about all of the accessories but starting from the left above the rifle and moving clockwise, they are as follows:

- (1) Cannot make this one out. (Pope muzzle rest for bench shooting)
- (2) Cartridge box
- (3) Cartridges and bullets
- (4) Re & De-capper
- (5) Bullet lubricator
- (6) Powder measure
- (7) False muzzle
- (8) Bullet starter
- (9) Cleaning rod

As a member of the NBRSA, bench shooting is my number one interest. However, I am also interested in single shot rifles, particularly any that have

been converted to modern cartridges. I have in my possession several single shot rifles, mostly conversions, ranging from a Stevens 44½ up to a Webley-Farquharson and Ruger. I would be interested in possibly writing an article for your magazine concerning actions, desirability of actions, completed rifles, accuracy levels, etc.

Sincerely,
M. G. STOKENBERRY

BULLET JACKETS; .22 caliber, .675 .705 lengths, \$10 plus postage on 3 lbs. per 1000, .30 caliber, .770" .920" 1.050" lengths, \$18.50 per 1000 prepaid, cash with order. R. W. Kampen, 557 Pearl Ave., Rockford, Illinois 61111.

NBRSA OFFICE MEMO

Available from the Secretary's office are the following: 100 and 200 yard targets in cartons of 500 only, \$11.25. (10% discount for affiliated clubs, plus postage on 20 lbs. to proper zone) and on hunter targets, \$16.25 per carton of 500 (plus postage on 28 lbs. to proper zone). Coat brassards, \$1.25 each; and rule books, \$.50 each.

We are out of rule books until a new printing is made; all those who have sent money in will get their books as soon as they are out.

NBRSA membership for one year is \$8.00. This includes a subscription to PRECISION SHOOTING for the membership term. NBRSA associate membership, no magazine, \$2.50 a year. NBRSA Life Membership, \$75.00. Club affiliation fee, \$10 annually. Contact Bernice McMullen, Sec.-Treas., NBRSA, 607 West Line Street, Minerva, Ohio 44657.

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NRA

News Releases

NRA MEMBERS POLLED: SUPPORT SOUND GUN CONTROLS — OPPOSED TO DODD BILL

BOSTON, MASS., April 10 — Stung by a recent charge that its members do not support its stand on gun control legislation, the National Rifle Association today ran a brief survey of opinion at its 97th Annual Meetings here.

NRA placed several hundred questionnaires at the entrance to its exhibit hall at the War Memorial Auditorium, asking its members simply, "Do you agree with NRA's position on gun control legislation?"

The answers received in the first two hours: Yes — 376, No — 6.

NRA President, Harold W. Glassen, who counted the first 400 ballots with members of the press, said:

"While this is only a cursory survey of those attending our Meetings, it shows without a doubt that NRA members overwhelmingly support the NRA's position on gun control legislation, and refutes charges to the contrary.

"Our questionnaire proves that the majority of NRA members are opposed to the administration's restrictive gun bill sponsored by Sen.

Thomas J. Dodd, (D.-Conn.) and supports the NRA's position on gun control legislation that will protect the legitimate sportsman from harassment and undue restrictions."

NRA PRESIDENT SLAMS HYPOCRITES — CALLS FOR DEFEAT OF DODD BILL

BOSTON, MASS., April 10 — The President of the National Rifle Association tonight lashed out at those who claimed to be friends of the NRA, but refuse to support its drive for sensible and practical gun legislation.

Harold W. Glassen of Lansing, Mich., newly re-elected President of the 960,000-member organization, characterized those who doubt such a policy as "political gun bearers for the Kennedys and the Dodds", regardless of their political affiliations.

In a speech before the banquet at the conclusion of the NRA Annual Meetings in Boston, Glassen called for solidarity among hunters, target shooters, conservationists, sportsmen, and gun owners who believe in the traditional American right to keep and bear arms. He urged that they join NRA to form a solid block of opposition to what he termed "the overly-restrictive provisions of the

administration gun bill sponsored in the Senate by Sen. Thomas J. Dodd (D-Conn.)," and he emphasized that the efforts of this solid front should be directed simultaneously at passage of two bills sponsored by Sen. Roman L. Hruska (R-Nebr.), which would "keep guns out of the hands of criminals while protecting the rights of legitimate gun owners." He also called for action on a House bill sponsored by Rep. Bob Casey (D-Tex.), to impose mandatory penalties on criminals who use guns in crimes.

NRA ANSWER: NRA MAY CONSTRUCT SHOOTING CENTER TO REPLACE CAMP PERRY FOR NATIONALS

BOSTON, MASS., April 10 — The Board of Directors of the National Rifle Association today authorized a study to investigate the possibility of establishing a new NRA National Shooting Center for the conduct of future National Championships, and approved a proposal for the establishment of a new national conservation research center.

The Board also re-elected NRA President, Harold W. Glassen; Vice President, Woodson D. Scott; Executive Vice President, Franklin L. Orth; Executive Director and Treasurer, Louis F. Lucas; and Secretary, Frank C. Daniel.

The actions came as NRA concluded its 97th Annual Meetings at the Sheraton-Boston Hotel here. More than 25,000 NRA members attended the 6-day meetings.

The possible need for a new site on which to conduct the National Championships grew out of the withdrawal of Army support for the traditional National Rifle and Pistol Matches at Camp Perry, Ohio, which has been leased by the Army for a number of years each August for the conduct of the Matches. The Army announced its withdrawal of support for the 1968 matches for economy reasons.

In approving the recommendations of its Range Facilities Committee, the NRA Board of Directors adopted a resolution stating that "consideration be given to a project investigating the possible establishment of a site, or sites, as a National Shooting Center, on which to conduct future National Championships. This site or sites is to be owned or leased and developed by the NRA, or by private enterprises with the assistance of NRA."

The Board approved the recommendation of the NRA Hunting and Conservation Committee to appoint a

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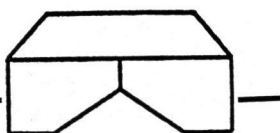
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three man committee composed of the NRA President, the chairman of the Finance Committee and the chairman of the Hunting and Conservation Committee, to acquire this site for a new conservation research center. No further details of the new center were disclosed.

In other actions, the Board:

(1) Established the year 1898 as the line of demarcation between antique and modern firearms;

(2) Authorized an indoor 2600 Pistol Club to match the outdoor 2600 Pistol Club;

(3) Passed a resolution requiring that a list of safety instructions be printed in all NRA rulebooks and that safety posters be developed and posted at all ranges during NRA competitions;

(4) Voted a fund of \$1700 to be contributed to the National Resources Council to help defray expenses, briefs and monitoring the Public Land Law Review Commission Reports;

(5) Authorized an open general session or range development and promotion to be held during the next 1969 Annual Meetings in Washington, D. C.;

(6) Accepted an offer by Robert Lindahl, consulting acoustical engineer and vice chairman of the NRA Range Facilities Committee, to conduct a course on range construction acoustical problems to be conducted in Washington, D. C. for NRA staff personnel and others who wish to participate.

WOMEN ELIGIBLE FOR U.S. OLYMPIC SHOOTING TEAM

By **LEE L. LaCOMBE**

WASHINGTON, D. C. — History may be made in July when the greatest rifle, pistol and shotgun shooters in the U. S. move into San Antonio, Tex., to compete for berths on the U. S. Olympic Shooting Team and for U. S. International Shooting titles.

Under a change in International Shooting Union rules, women may now compete on an equal basis with men for positions on an Olympic squad.

Capt. Margaret Thompson of the U. S. Army has a chance to be one of the first American women to crack the barrier. Recognized as one of the outstanding rifle shots in the world, the Topeka, Kansas, native has already captured World and Pan American rifles titles, defeating many of the finest male shooters in the world.

She has been described by world champion Gary Anderson as one of

PRECISION SHOOTING MAY '68

the "best rifle shots in competition today."

Co-Hosts for the 1968 Final Tryouts, which are sponsored by the National Rifle Association of America, will be Lackland Air Force Base and the new Texas International Gun Club. The matches will run July 3 through July 19.

All rifle and pistol events will be fired at the Air Force base and the civilian club will conduct shotgun matches.

Added to this year's program for the first time will be a new pistol course and national competition with the air rifle.

The air rifle will be conducted July 8-11. The course of fire will consist of 40 record shots from the unsupported standing position at the 10-meter target.

The ISU Standard Pistol Match has also been added and will be shot July 17-19. The three-stage match is very similar to American courses of fire. The first stage will be 20 shots with two and a half minutes allowed per five-shot string; the second stage consists of four five-shot strings with a 20-second time limit per string, and the third stage will be four five-shot strings with a 10-second time limit per string. Distance will be 25 meters.

The first event on the calendar will be held at the Texas Club. After two days of practice, Skeet shooters will fire three days for record.

One day for practice will be allowed for the .22 caliber rifle shooters in the English Match and the Free Pistol entries; then they will fire three days for record at Lackland, July 8-11.

Clay Pigeon blasters have four days of practice followed by three days of competition at the Texas Club, July 8-14.

After one practice session on July 12, smallbore rifle contestants in the Three-Position Rifle match and Rapid Fire Pistol entrants will have three days of record firing, July 13-15.

Running Boar competitors get the jump on everyone, firing June 26-28, for national laurels.

The last three competitive events — the Standard Pistol Match, Center Fire Pistol, and Free Rifle — will hold record firing July 17-19, following one day of practice.

The U. S. International Shooting Committee will hold a meeting during the matches.

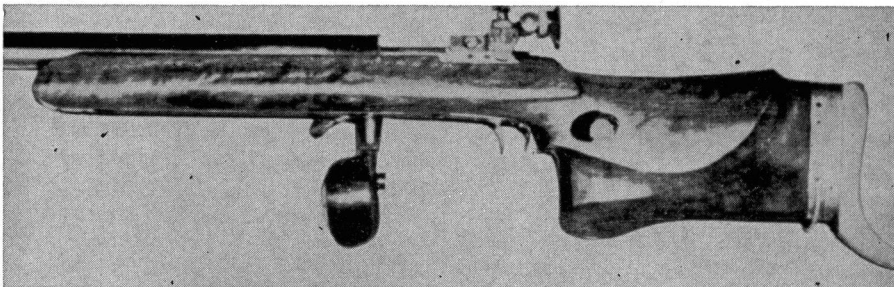
The Olympic Final Tryouts will be held in conjunction with the U. S. International Shooting Championships. The NRA is responsible for the selection of all shooting teams to

(Next page please)

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Attendance at this year's matches will be by invitation of the NRA International Shooting Committee and the U. S. Olympic Shooting Committee. Eligibility to compete may be accomplished by firing in one of the 80 sanctioned Preliminary Tryouts, by petition to the committee, by application to NRA headquarters, or by having been a member of any U. S. International Shooting Team since 1960. Range capacities in the different events will govern the number of invitations issued.

Entries and fees must be received in NRA headquarters in Washington, D.C., postmarked no later than June 15, 1968.

The U. S. Olympic Shooting Team this year will consist of 12 members; four will be riflemen, four pistol entries, and four shotgun firers.

The shooting events in the Summer Olympics at Mexico City are scheduled to be fired October 18 through October 23.

NRA Votes National Match Site Study

By WILLIAM W. GILMOUR

The Board of Directors of the National Rifle Association has authorized a study of the possibility of establishing a new NRA National Shooting Center for the conduct of national championships.

At the recent 97th Annual Meetings of the 950,000-member sportsmen's organization, NRA's governing body also:

(1) Approved a proposal for the establishment of a new National Conservation Research Center for a continuing study of wildlife and conservation.

(2) Re-elected NRA President Harold W. Glassen, Vice President; Woodson D. Scott, Executive Vice

President; Franklin L. Orth and other top officers of the Association, as well as eight new members of the Board.

(3) Established the year 1898 as the line of demarcation between antique and modern firearms.

(4) Authorized an Indoor 2600 Pistol Club to match the Outdoor 2600 Pistol Club.

(5) Passed a resolution requiring that a list of safety instructions be printed in all NRA rule books and that safety posters be developed and posted at all ranges during NRA competitions.

(6) Authorized an open general session on range development and promotion to be held during the 1969 Annual Meetings in Washington, D.C.

(7) Accepted an offer by Robert Lindahl, consulting acoustical engineer and vice chairman of the NRA Range Facilities Committee, to conduct a course on range construction acoustical problems to be conducted in Washington, D.C. for NRA staff personnel and others who wish to participate.

National Match Site Study

The possible need for a new site on which to conduct national championships grew out of the withdrawal this year of Army support for the traditional National Rifle and Pistol Matches at Camp Perry, Ohio, which has been leased by the Army for a number of years each August for the conduct of the Matches. The Army announced its withdrawal of support for the 1968 National Matches for economy reasons. NRA will conduct the Matches this August on its own, but plans for future years have not yet been completed.

The Meetings were the most successful in the history of the organization.

Boston was the site of this year's gathering and more than 20,000 members registered for the event. An additional 10,000 persons visited War Memorial Auditorium to see the displays of modern and antique fire-

arms, hunting equipment and sports shooting accessories.

The 125 exhibitors represented a new high in the number of businesses that displayed their wares.

The days were packed with committee meetings, tours of Boston and nearby Fort Devens, and sessions pertaining to all the aspects of sports shooting.

The annual Members' Banquet drew a full house and a head table lined with civic and military dignitaries that included Sen. Bourke Hickenlooper (R-Iowa) and Lt. Gov. Francis Sargent of Massachusetts.

Members Support NRA

In a poll of its members conducted near the end of the meetings concerning support of NRA members of the policies set by its leaders, the members voted a resounding 97 percent in favor of NRA's present stand on Federal gun controls.

The poll was generated by a published article quoting Sen. Joseph Clark (D-Pa.) as saying that the "majority of the members of the National Rifle Association did not support the views of its leaders (concerning gun control legislation)".

The NRA's position was reiterated during the meeting by Harold W. Glassen, President of the organization:

"Our questionnaire proves that the majority of NRA members are opposed to the administration's restrictive gun bill sponsored by Sen. Thomas J. Dodd (D-Conn.), and support gun control legislation that will protect the legitimate sportsman from harassment and undue restrictions."

U. S. Is Expected to Fare Well in Olympic Shooting

By LEE L. LaCOMBE

WASHINGTON, D. C.—One of the events that the United States should do well in during the Summer Olympics at Mexico City in October is Shooting.

A series of nearly 80 Olympic preliminary tryouts have been sanctioned by the National Rifle Association and these have been taking place since last fall in different sectors of the country. The Final Tryouts are scheduled to be held in San Antonio, Texas, July 3-20.

At that time a squad composed of four pistol shooters, four riflemen and four shotgun competitors will be determined on the basis of scores fired in the Final Tryouts.

For the first time in many years the majority of candidates for the team will be experienced shooters in

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international competition. Hardly anyone who has had a real chance at making the team has not competed in international events during the past four years.

The 12-man team will be backed up by a very experienced administrative pair. Harry Reeves, six-time national pistol champion and veteran of international handgun matches, was named Team Captain and Jim Crossman, a retired Army colonel and smallbore rifle official in the 1932 Olympic games in Los Angeles with many years of activity in domestic and international matches, was selected Team Adjutant last fall.

The National Rifle Association is responsible for the selection of all shooting teams to represent the U. S. in the Olympics, Pan American Games and World Championships recognized by the International Shooting Union.

The NRA will have a championship field to select from this year.

Expected to be in the vanguard for positions on the rifle squad are Gary Anderson of San Anselmo, Calif., who vaulted into prominence at the World Championships in Cairo, U.A.R., in 1962 and has been collecting Gold Medals ever since; Capt. Lones Wigger, Great Falls, Mont., who collected the first Gold Medal won by the U. S. in the '64 Olympics in Tokyo; Capt. Bruce Meredith of the Army Marksmanship Training Unit at Fort Benning, Ga., and Capt. Rhody Nornberg of the Air Force Marksmanship Unit at Lackland AFB, Tex. Both Meredith and Nornberg were members of Gold Medal winning U. S. teams in the Pan American Games at Winnipeg, Canada, in 1967.

They will be challenged strongly by two newcomers to Olympic competition.

Capt. Margaret Thompson, Topeka, Kans., the Army's premier riflewoman, can become the first woman to ever compete in Olympic Shooting matches for the U. S. A rules change last fall by the I. O. C. now permits women to compete for berths on a country's team to shoot in the Olympics.

Army Lt. John Writer showed that he will have to be reckoned with at the Pan Am Tryouts at Fort Benning last summer when he blasted his way to a place on the U. S. team and helped the U. S. win a Gold Medal in one of the team events. Since then he has been shooting international-style matches in the west and taken several first places.

Among the veteran shooters in smallbore and free rifle competitions

will be Capt. John Foster of the Army, the Marines' WO David I. Boyd, both of whom shot on the U. S. team in the 1966 World Championships at Wiesbaden, Germany. Boyd set a new world's record in the English match with a 598 out of 600 and Foster was third in the Free Rifle aggregate, which had been won by Anderson.

Competition for the four pistol shots will be keen. And again the U. S. is blessed with a wealth of talent and experience.

From the Army will come M/Sgt. William B. Blankenship, Jr., Richlands, Va., current national pistol champion, a title he has won six times and SSG Herschel Anderson, Tracy City, Tenn., who won the Pan American Free Pistol title last year.

Maj. Franklin Green and SSG Arnold Vitarbo will be a pair of strong contenders from the Air Force. Both have represented the U. S. in international competition in the past.

Marine Corps Maj. William McMillan, an Olympic Gold Medal winner in Rome in 1960, won the Rapid Fire pistol crown at the '67 Pan Am Games and is always tough. Another Marine, SSG Francis Higginson, has been improving steadily. He was on the U. S. team at Winnipeg.

The Skeet and Clay Pigeon team will probably be a wide open battle. Veterans and newcomers alike have a strong chance to make the team with such newcomers as Bob Schuehle, Roselle, Ill., and Chris Bishop, of Kansas City, Kans.

From the services will come such outstanding shooters as Capt. Gordon (Jack) Horner, Sp5 James Beck, both of the Army; 1st Sgt. Billy Hicks and Lt. Al Morrison of the Marines; Sgt. Jack Johnson and Sgt. Tommy Kremer of the Air Force, and Al Buntrock of the Navy.

Morrison won the Pan Am skeet championship with a match record of 195 birds.

Bob Rodale, Allentown, Pa., a civilian who has gained a world of experience in past years and last September represented the U. S. in the World Moving Target Championships at Pistoia, Italy. He was a member of the World record-setting skeet team to Cairo, Egypt in 1962.

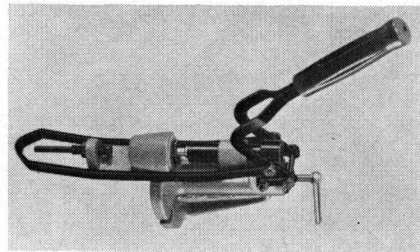
With experienced shooters like these to choose from, the U. S. can hope to improve upon its fine record in the last Olympics when Americans won two Gold Medals, two Silver Medals and three Bronze Medals in the shooting events.

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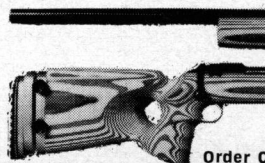


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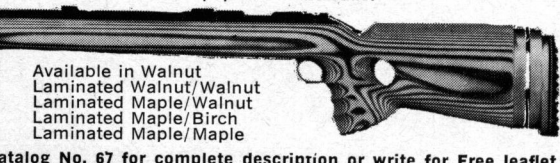
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Instructions

FOR USING CHAMBER REAMERS

By L. E. WILSON
Cashmere, Wash.



Before taking up the actual use of chambering reamers, some pointers regarding the preparation of barrel blanks, and the proper support of blanks and barrels in the lathe are in order. It is taken for granted that the users of these reamers will be using a lathe for supporting the barrels and blanks to be chambered and for providing power for the operation. Supporting the barrels and blanks accurately is very important.

Letter to the President

Cashmere, Washington
March 18, 1968

Dr. A. H. Garcelon, President
133 State Street
Augusta, Maine

Dear Doc:

Have letter. Boy I can sympathize with you. Trouble seems to be your middle name.

About a year ago you asked me if it would be O.K. to run my chambering instruction sheet in PS. I have just read over this sheet and I see nothing therein that can't stand publishing. If you want to have this done, to fill up some of your blank space, go ahead. Only thing, I would like to see a proof before printing. For one thing, the mimeo sheet isn't too well printed and then some of these non-shooters have their own interpretation of words and what they mean.

For instance, once we sent some copy to the local printer to be set up. We asked for proofs. Checked same and found where we had used "chamfer" he had changed it to "chamber". He had never heard of the word, "chamfer".

I sent in another article to the Rifleman last week. Not the one I started last fall but having to do with some bullet spinning experiments I ran long ago when I was active in military rifle shooting. If you won't be going to the NRA headquarters soon and want to see my copy of this material I'll send it along.

I don't know anybody named Tooly. Hope he turns out to be the one we need.

I expect to conclude some outdoor experiments for the Rifleman article started last fall. Worked a couple days last week making another portable bench. Need two for the experiments. Too cold this month to get out on the range. Should be able to handle it in April.

Best to you, Doc. and don't let that blood pressure get away with you.

Sincerely,
Sam
(E. L. Wilson)

While these instructions have to do primarily with chambering, it might be well to mention that we always machine the thread on the shank with the barrel supported on centers and we always perform the chambering operation with the muzzle end supported and driven by collet chuck while the shank end is supported by the steady rest and accurately aligned with the tailstock. If the shank end is not accurately centered with the tailstock considerable strain will be imposed on the chambering reamer and an enlarged and rough chamber may be the result. One thing we never do is to chuck the shank end of the barrel in the lathe chuck, leaving the muzzle end projecting back into the lathe spindle, unsupported.

You should be sure when you start machining a barrel blank on centers that the centers are true with the bore. You can't always depend on the centers found on the blank. We use a 60-degree reamer with close-fitting pilot to true up the centers when required. If the cones are too deep to be cleaned up by the reamer we face off the ends of the blank until we can ream new, accurate centers.

In preparing the barrel blank, we first check the centers and true up if required. Then the blank is dogged and placed on the lathe centers. A short section of the muzzle end is turned to some standard size, like 3/4, 7/8, or 1", to fit a Hardinge collet. (This short section is trimmed off when the muzzle is finished.) The dog is switched to the muzzle end and the shank end is turned for threading. The thread is machined, the shank faced to proper length and then the blank is chucked at the muzzle end and the shank end, supported by the steady rest, is aligned with the tailstock. The ramp is machined, if the barrel has a ramp, and then the barrel is ready for chambering.

All Wilson chamber reamers have a threaded shank. Except for the small reamers, this thread is 7/16-20 N.F. A plain handle, threaded in the center, can be made of 3/8 x 3/4 cold finished steel. Round the corners so

the handle will be easy on the fingers. An 8" length for this handle is about right. For the final chambering operation after the barrel has been screwed into the receiver you will require a reamer extension. This can be made of 9/16" round stock, 7-3/4" long. Tap one end 7/16-20 and square the other for a tap wrench. If you have no tap wrench you can thread the OD for the first reamer handle. NOTE: In the case of small reamers like .22 L.R. it is advisable to use a handle made of a steel disc about 2" in diameter and 1/4" thick, knurled on the OD and threaded for the reamer. Such a handle will allow a more sensitive "feel" on these small reamers.

On all chambering jobs where the finish reamer must advance 1/16" or more it is advisable to use a roughing reamer first. The roughing reamer should be undersize all over by a few thousandths, with reference to the finishing reamer, and should be run in to within .015 to .030" of finished depth before the finisher is used. Finish reamers will last a long time and will finish a lot of chambers if all they have to do is finish ream. If they have to both rough and finish ream, they will be doing many times the work they should be required to do and will naturally have a shorter life than they should have.

The entire chambering operation, right from the start, should always be done with piloted tools. In our barrel work we never use any drills to speed up the work. Ordinary drills, having no pilots, will wander more or less, usually more than less, and this wandering must always be corrected by piloted tools that follow. It usually takes not over 10 to 20 minutes to rough out a chamber with a four-blade reamer and that is not too much time to allot to that part of a chambering job.

In our shop we have a constant supply of compressed air to all lathes and to most other machines. In chambering, this air is used to blow the chips from the reamer and to blow chips from the chamber. With the rougher, we usually figure on removing 1/4" of stock and then removing chips. When about three-fourths done with the roughing we cut this to 1/8" and then clean chips. If the barrel is chucked at the muzzle end there is a clear passage for air

through the barrel and the chips are easily blown clear of the chamber. If the barrel is centered on the muzzle end you will be blowing into a blind hole, which makes chip removal difficult. Many shops don't have compressed air and the chips will have to be removed by some other method. We use a can of oil, such as lard oil or threading oil, and a small brush to lubricate the reamer between steps. Slop the oil on generously. It will pay dividends.

The reamer should be supported by the tailstock center and the handle should be held in the fingers so you can let go if the reamer loads up. The reamer should be fed in slowly by the tailstock spindle and the barrel should turn about 30 r.p.m. The reamer should never be chucked unless you have a special chuck with an adjustable friction drive so the reamer can turn if the load becomes excessive.

After roughing to the desired depth the barrel should be removed and placed in a vise. The finish reamer, with a close fitting bushing on its pilot end, should be used by hand until contact is felt with the chamber shoulder. Then the reaming should proceed slowly and carefully until about .002 to .004" remains to be removed. The barrel is then screwed into the receiver tightly. The reamer

extension is then attached to the reamer and the chamber carefully reamed until it will accept the correct headspace gage. The chamber and reamer should be cleaned each time the reamer is removed so that there will be no chips to interfere with accurate gaging and so that there will be no chips under the cutting edges of the reamer when it is placed back into the chamber. This is the fussiest part of the entire chambering operation and no matter how long you have been doing this work you will find it necessary to go slowly and carefully at this point.

When chambering barrels for rimmed cartridges with reamers having rim counterbore cutters integral, the finish chambering can be done without the barrel being assembled to the receiver. The reamer is run in until the counterbore cutters just begin to scrape the shank. This refers, of course, to the Krag type of shank wherein the rim bears against the end of the shank instead of being let

into it. With the type shank wherein the head of the case is let in flush with end of shank use a micrometer depth gage to tell when you have reamed the required depth. All our finish reamers for rimmed cases have the counterbore cutters integral.

Care should be taken to protect the cutting edges of these reamers. They should never be left loose with other tools but should each have its own paper tube or should be kept in a canvas kit, a separate pocket for each reamer. The latter is the best idea, a separate kit for each caliber with six or more pockets so the reamers and gages for any one caliber can be kept together. Any housewife with a sewing machine can turn out such a kit in short order and it will pay dividends. We do not advise boring a hole in a block of wood for each reamer. This is O.K. if the wood is perfectly dry but we have seen some reamers badly rusted by this method, when the block happened to have some moisture in it.

Letters TO and FROM

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The HANDLOADER

Dept. PS, Route 4, Box 3482
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April 18, 1968
Kalamazoo, Mich.

Precision Shooting
Editor

Dear Sir:

I have a Remington 280 model 725 that shoots very accurately, minute groups without much struggle. I understand I may use 30-06 brass—won't this create headspace for a rimless case of this cal.? The shoulder will have to be moved up; won't this be dangerous when they are fireformed? The die will not raise the shoulder.

I would like to have an answer and explanation on the proper way to convert the 30-06 brass to 280 Rem.; as I mentioned the rifle shoots very well. On page #4 of 2/68 issue of *Precision Shooting* shows my score at "The Flat River Cons. Club" shoot 4th place. I was using the lowest power scope in the shoot—a Weaver 2.5 X (hunter class).

Very truly yours,
Robert Himebauch
511 Reed St.
Kalamazoo, Mich. 49001

P.S. In my 2/68 issue of *Precision Shooting* middle section (pages

9, 10, 11, 12) was missing—I would like to receive this. I enjoy your little mag. very much.

* * *

April 26, 1968

Mr. Robert Himebauch
511 Reed Street
Kalamazoo, Michigan 49001

Dear Mr. Himebauch:

Since the 280 Rem. case is 2.54" long and the 30-06 is 2.49" long, it is unlikely that the 30-06 cases would work satisfactorily for the 280 Rem. since a gap of .050" between the end of the case and end of the chamber would be more than desirable. For this reason we would not recommend that you attempt to use 30-06 for 280 Rem.

Mr. Tooley, the new editor of *Precision Shooting*, has not received any extra February issues of the magazine from Mr. Ackor. As soon as they are available he will be able to send you a new copy to replace yours which has the center section missing.

Sincerely,

M. H. Walker, President
Precision Shooting

The Effect of Mirage On Point of Impact

I have been asked a number of times to explain the apparent bullet drift caused by Mirage—rather ironical in view of the fact that I have never been able to dope it in a satisfactory manner myself. At 100 yards I am able to do reasonably well, but, at the longer range, it seems that I have neither the patience to wait for opportune moments to fire, nor the intestinal fortitude to hold off as much as I KNOW is necessary, when I already have a number of shots in a favorable size group. Invariably, along the way, I will allow a few shots to drift out, thus ruining my chances of making a really good aggregate average.

Those who have come into present day Bench Rest competition with a background of either smallbore or bigbore outdoor competition have a goodly amount of knowledge of the effect of mirage, though I have found in many cases that the smallbore shooters are apt to be confused as to how much of their bullet drift is caused by wind and how much by mirage. It takes them some little time to learn that the effect of the mirage is the greatest factor and that it is frequently necessary to hold off nearly as much with a high velocity bench rest rifle as with the little rimfire. Those who have entered the Bench Rest game with only hunting rifle or gallery experience as a background are apt to become completely confused when shooting during a light fishtail breeze with a heavy mirage, and may even become so discouraged that they give up bench rest

competition completely. Certainly, if one is to consistently get into the winners circle, a knowledge of the effect of mirage is no less important than the possession of an accurate rifle, and the ability to load properly for it. I know of no better place to learn this than at the bench with an accurate rifle, and I believe that those riflemen who are primarily interested in other forms of rifle competition would be better off for a year or two of participation in bench rest competition.

While my own knowledge of the subject is definitely limited, it is inevitable that I should have picked up some information during the course of some twenty years of various forms of competition with the rifle, and, in the hope of helping some beginner over a rough spot, I am willing to TRY to explain this thing. I have been told that there are top flight Bench Rest shooters who have passed along false information on this subject, but I feel that this is because of the difficulty of explaining what actually happens, rather than a deliberate attempt to confuse the inexperienced shooter. The Bench Rest match is the one place where I have found accurate information more readily available to the beginner than in any other competitive sport.

The 1955 National Match at Johnstown, N. Y., was a concrete example of the importance of learning all that one possibly can about the effect of mirage. Good dopers were able to shoot excellent averages, even breaking aggregate records, while other shooters with equal or nearly equal equipment got caught in a reverse of the mirage and scattered shots to over two inches at the longer range. Yet I doubt if there was enough actual wind drift of the bullet to widen groups more than an extra half inch at any time.

One of the worst examples of mirage drift I have ever seen was some four years back. I was shooting in a match during a time when the prevailing condition was a 3 o'clock breeze of four to six miles per hour, together with a very heavy mirage. Shooting from the bench to the right was a fellow who had been very near the top the previous year in much better conditions. We each

(Editor's note: This article was prepared by an experienced shooter who placed among the top ten in the 1955 National Bench Rest Rifle Championships who attempts to give some assistance and offer some suggestions which may help a less experienced shooter improve his shooting. Judgment in estimating the effects of mirage and wind must be gained by the individual shooter through his own careful shooting and observations under adverse shooting conditions. This writer suggests plans for doing that effectively.)

★

fired six shots and both groups were under one inch at this stage. As I loaded the seventh round, the breeze started to veer around to six o'clock, and I waited while it veered completely around to 8:30. Meantime the shooter adjacent to me kept on firing at a normal rate. Each of his shots went farther to the right until he ended up with a double that made his group measurement some 3¾ inches. Continuing to wait until the breeze returned to its normal 3 o'clock direction, I fired my remaining four shots in rapid succession to stay within the time limit, ending up with a group small enough to win that match. Meanwhile, my fellow shooter had left the bench with many vague mutterings about his rifle which shot so well yesterday and so poorly today. In that case, actual drift of bullet caused by wind would not have been over one half inch but the mirage caused an error in aim of nearly four inches.

When shooting in a mirage, the light rays from the target entering the scope are bent in the direction that the wind is moving. Therefore the target appears to be in a spot slightly removed from the actual location. This bending of the light rays is similar to the bending that takes place in looking at an object under water except that it takes the form of a more gradual curve, rather than the sharp angular bend which takes place where air and water meet. The actual amount that the target appears to move causes the same amount of error in location of the shot regardless of the wind-bucking quality of the load and bullet used. There will be a slight difference in apparent drift, due to the fact that the wind is moving in the same direction as the mirage, and the wind, however light, will have some effect on the bullet. Normally, shooting in a light breeze which does not exceed eight miles per hour, I would estimate that probably 75 to 80 per cent of the dispersion of shots is caused by the bending of the light rays, and

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consequent error in aim, and only 20 to 25 per cent by actual wind drift of the bullet after it leaves the muzzle.

The sixty-four dollar question then is how to estimate the amount that the light rays are bending and how much the target appears to have moved from its true location. While my answer to this would never win the sixty-four dollars, I may be able to offer a couple of suggestions that will help the beginner in solving this problem.

The most simple, and the BEST advice that can be given regarding mirage is to practice in conditions simulating those which may be encountered in a match. However, if one were to just go out and shoot in these bad conditions, and continue to shoot until he felt he had conquered the problem, he would probably find it necessary to wear out more than one barrel in the process. It is not essential that the rifle used in this practice be one for which the owner holds high hopes of making records. For those individuals fortunate enough to own more than one bench rifle, it is advisable to save the best one for competition, and use one which is of less value. It is necessary to know the potential accuracy of the rifle used, however, so the shooter should test his rifle, scope, bullets, loads, and himself (his methods of holding and aligning rifle) under the most perfect conditions that can be found. When he has determined exactly what he can do with that particular rifle in good conditions, he is ready to try to duplicate this accuracy under adverse conditions. Even a good .22 rimfire rifle can be used for some of the practice at the 100 yard range, as the amount of holdoff with the little case is only slightly more than with the high velocity rifle, IF most of the dispersion is due to mirage rather than actual wind-drift. The groups with such a rifle will not approach those that can be shot with a good bench rifle, but if the groups are not appreciably wider than the height, and the shooter is holding off for a number of the shots, he will know that his estimation of the mirage displacement is somewhere near correct.

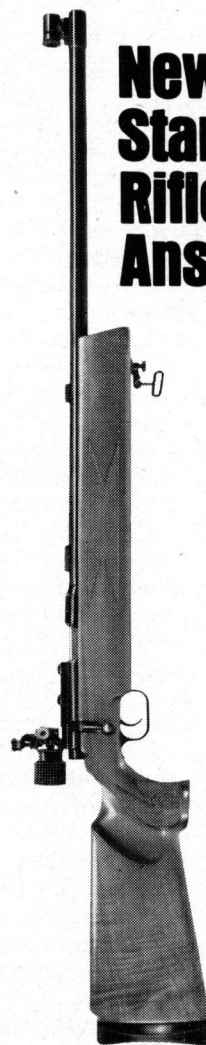
Ranges on which the shooting is over bare sand and gravel develop more mirage than those which are covered with grass, and the worst mirage conditions usually develop on a warm sunny day, after a rain or whenever there is a lot of moisture in the ground. It is not limited to these conditions, however; a very bad mirage condition can be encountered

during night shooting whenever there are alternating currents of warm and cold air. One should select a day when the mirage is heavy enough to be clearly visible in the scope, and preferably when the wind is a rather light breeze which is fishtailing; that is, changing to both right and left of six o'clock. It saves barrel life, and speeds up the process, if two shooters can work together in practice, shooting from two adjacent benches. If a long narrow board is painted a light greyish blue, and nailed on the two target frames below the targets but within the field of view of the scope when aiming, it helps make the mirage waves more easily seen. This color works well for me but other colors may work as well. Even an unpainted board will help, as it provides a longer unbroken surface than is any part of the target frames, thus helping to estimate the speed at which the waves travel to right or left. Under the right conditions these waves or ripples can be clearly seen through any scope, and frequently with the naked eye, and the direction and velocity can be estimated with some semblance of accuracy. The smallbore shooter finds it necessary to estimate with only enough accuracy to maintain his score. In bench rest competition it becomes necessary to estimate the proper holdoff to as close as 1/16 inch at 100 yards, if one is to shoot winning groups.

Having set up two target frames with targets, and made ready to shoot, it becomes advisable for one man to shoot while the other watches through his scope, with both scopes aligned on the same target. The one who is not shooting can concentrate on the mirage drift at the time of each shot, and, in turn, see where the location of the shot is in any definite condition of the mirage. In doing this he will actually learn more about mirage drift than if he were trying to concentrate on close holding and mirage at the same time. The two shooters can shoot alternate groups in this manner until they feel that they have begun to gain some understanding of what takes place. The next step is for one to shoot while the other tells him where to hold for each shot. This can be rather easily done if the rifle stocks are of such design that the rifles will set steadily on the rests without movement when the shooter looks through the scope. The crosshair of the scope on the rifle not being shot is centered on the target being shot at, and, as long as the target remains centered on the reticule, the shots

(Next page please)

New I.S.U. Standard Rifle from Anschütz



How can a rifle designed especially for international matches be just what U.S. smallbore shooters are looking for? Easy. The Anschütz people built a position rifle to meet the new International Shooting Union "Standard" classification. What they came up with happens to be ideal in weight and stock design for U.S. match requirements.

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can be held center. When the mirage drifts the target off the reticule center, the person shooting is told to hold off to the same point as that at which the crosshair of the non-firing scope appears to be on the target. If the wind is enough to cause actual bullet drift, the amount of holdoff should be increased slightly to compensate for this, but it will soon be learned that the wind-drift in normal light breezes is far less of a problem than the optical displacement of the target by mirage. A few practice sessions in this manner, when the conditions are particularly adverse, will provide anyone with a good basic knowledge of the effect of mirage.

If one must, of necessity, shoot alone, the problem becomes more difficult, though there is a method that helps. Again selecting a day of heavy mirage and fishtail wind, the shooter sets up his target and prepares to shoot. The rifle is carefully aligned on the target during the condition that prevails most of the time. It should set steadily enough so that it is possible to lean over and look through the scope with no movement of rifle or bench. With another target and a pencil, the shooter, who is now dry firing from the bench, puts a dot on the target in his hand at the

exact location of the crosshair on the target at 100 yards or 200 yards. He then waits about 40 seconds, looks through the scope and again marks the location of the crosshair on his target. This is continued until there are ten dots on the target and, preferably, two or three of these should be made when there has been a change in conditions and mirage drift. With ten dots on the target, the target is reversed; that is, rotated 180 degrees. With the target in this position, the dots show the location of any shots that might have actually been fired at the time the dot was made, with, of course, no allowance for the actual wind drift of bullet after it left the muzzle, nor for the inaccuracies of the rifle and load. After repeating this process a number of times in adverse and changing conditions, one will have some understanding of what actually happens when shooting in a bad mirage, and will have learned this without wear and tear on a good barrel and the cost of loads.

With either of the above methods, I believe that it is possible to learn more about the effect of mirage than can ever be learned in any other form of rifle shooting. Having learned what the mirage does is merely the first step in learning how to overcome it and to shoot those winning groups in conditions which may be encountered at a match. I have seen conditions that require as much hold-off as 1½" at 100 yards, and over 4" at 200 yards. When time permits, I think it is best to fire only during those periods when the conditions appear to be uniform, but quite frequently things change so fast that it becomes necessary to estimate the drift and hold off accordingly. As a rule, the 100 yard stage is much more simple as it is seldom necessary to hold off more than to the edge of the 10 ring or the ½" aiming square. At 200 yards, when one has over half his shots in what might well be a winning group, it takes a lot of courage to hold outside the 2" square, or the 9 ring, even though you know it is necessary to do so. This is your problem, no less than mine, and will continue to be so as long as we attend bench rest matches. Check out your equipment and yourself in ideal conditions, and then practice, practice, practice, until you have the courage of your convictions, and you should have a combination that can win when the chips are down.

If you feel the need of more specific information on the problem of mirage, hunt up a civil engineer who

has a wide experience in the field, running survey lines. His problem is to establish a straight line in a given accurate direction, and it sometimes has to be done in a mirage drift. The problem differs from shooting a rifle only in that he moves his target to the location of his shot, rather than correcting his shot to a fixed target, and he has no wind drift of the bullet, nor the inaccuracies of even the best loads to contend with.

The man with the transit, starting from an established zero point, can shoot a line in a definite direction, say from West to East, and can make a tentative setting of his target at an approximate location. He can then correct for mirage drift by another shot from East to West with a new target location established by the location of transit in relation to the original zero. Between the two will be the true location of the spot he wishes to establish. Again, the following morning, before the mirage develops, he is free to recheck on his previous shots, and thus eliminate any error caused by the mirage, so that his line runs true, and no harm has come from the effect of mirage.

The man with the rifle, once his bullet has left the muzzle, can do nothing to eliminate the error. Moral: Be SURE before you fire.

Who was the experienced shooter that wrote this article?

The top 10 can be found in Vol. 8 #10 of PRECISION SHOOTING Nov. 1955. This will give you a clue.

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PRECISION SHOOTING MAY '68

Some Scattergun Views on Scopes

I write not from the point of view of the technician, the engineer or the professional gun nut. Although I am a nut on guns, but from the point of view of one who has learned the hard way. I've spent a lot of money on scopes for a man of modest means. I've squinted through these optics and squeezed the trigger in burning up thousands of rounds of ammo, most of it home-made. And I've done this with the "shootin' iron" resting on beat-up sand bags, over past-board boxes, rolled up old blankets, tree stumps, fence posts, dirt piles, elbows on knees, at the bench with sand bags and gun rests, and a variety of other positions. And I've peered through magnifying instruments bolted to a variety of projectors of lead, from the 222 Remington to the 350 Remington magnum.

It is not my intent here to opine on what I think is the best scope made, but more on what I feel to be the most practical for the gun lover who goes afield for his favorite live target. Of course, most of us who wander woodland, meadow and mountain have more than one quarry we pursue throughout the turn of the twelve months of the year. Therefore, the ordinary gun nut needs the combo of gun and scope that best fits the game, the terrain and the maximum as well as the minimum distance that the target is expected. A case in mind centers around a good-natured argument I had with a friend who had just outfitted himself with a 7 m.m. magnum, and at the recommendation of the boys who made and sold him his barreled action, was buying a seven power optic for this beautiful piece of gunnery, and he is intending to use that combination on white tails in the thickly wooded area of Pennsylvania. I sparred with this good fellow on the impracticability

of mounting any rifle with that much "visual magnification" for the heavy timber country of that state. Now if he were going to Wyoming or some other of our expansive plains and mountains of the west that outfit is perfect. But even there I recall that Les Bowman, who used to be one of Wyoming's better outfitters (he is retired now) suggested that the four power is sufficient for those long distances on big game in that state, also. My above mentioned friend with the new 7 m.m. says he was informed that the 7 m.m. magnum should be mounted with at least a 7 power because of its hard hitting, flat trajectoried qualities. I agree, especially if a guy is going to those open, long ranges. But just because a 7 m.m. magnum is the great gun that it is does not mean that a 7 power scope is just the right one for that gun in Pennsylvania hunting. A scope should first be selected, not to match the gun, but the kind of country, etc., to be used in. I like a 3x or a four power for Pennsylvania woods, and I've made four single shot kills on bucks plus a red fox in that great state in as many years — with a four power scope on a 7 m.m. Remington magnum. The range has been from 75 feet to 200 yards, and I've seen my buck clearly in each thrilling case. A seven power scope would have made the 75 ft. buck look like an elephant. Besides, the smaller magnification has a greater field of vision. And this counts, too, especially if the quarry is on the move. So, boys, first consider your country to be hunted when you mount up.

Scopes for Safety

We read a lot these days about the dangers involved in hunting big game. And certainly we should be constantly reminded of the horrifying experiences that occur annually across the length and breadth of our land. A fatality caused by a hunter is tragic. There are many gun happy characters afield every year who give little thought to the fact that they hold a lethal weapon in their hands. And even the old-timers and experienced hunters can become too relaxed and overconfident about their safety habits. When a person is shot while hunting it has an electrifying and dramatic effect upon John Q. Public.

By ROLAND L. OSGOOD
Syracuse, N. Y.

Add this to the unwarranted sorrows this brings to the families of the victims of such accidents and you have a pretty serious situation. Not that one kind of fatality is preferred over another, but it has always puzzled me why a hunting accident is more dramatic and arouses more public ire than a drowning accident. I would venture a pretty safe guess that drownings each year far exceed hunting fatalities.

The point I'm trying to make in this discussion is that scope hunting is safer than open-sight hunting. If

(Next page please)

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Game Management and conservation groups, the NRA, gun and sportsman clubs would make an intensive study of hunting accidents with the scoped gun being the prime point in the research, the telescope sight would come out as the trophy winner, the friend of man, and the guardian angel. And if our states had dared infringe upon the rights of the individual nimrod to the tune of requiring scoped guns, one would find a sharp decrease in hunting accidents as well as wounded, maimed and illegally killed game. For that little old scope, if it is used by the hunter of either gender, will show up the target for what it really is. When a movement is spotted in the brush, that sight is going to tell right quick whether it's a man or a deer, a buck or a doe. And any deer that doesn't show ivory between the ears is not going to be shot for a buck. Many times in my trips in the woods, my naked eye has picked up profile movements that turned out to be another human being instead of an imaginary trophy. And some distant deer have proven to be legal bucks when the optics of the telescope were leveled on them. So, I have come home with game when I would not ordinarily have shot thinking I was looking at a doe moving among the trees. Yes, scopes are safer. How about a law that says, "Use scopes so you will know what to or not to shoot at." And I'm not selling these instruments, nor am I grinding an ax for a friendly firm. Think it over.

I'm not from Missouri, but you have to prove to me that variables are all they claim to be. I've suffered too many disappointments to believe that there is a variable scope that will consistently hold the same point of impact at various power settings. I've owned quite a number of the so-called best in optics. It was a great letdown to discover that there was as much as a two inch variance of point of impact between a three power setting and an eight power setting at a 100 yard distance. My first variable let me down this way, so I turned it in on a fixed power of my choice. A couple of years later I argued with myself that it probably must only be a defect in that particular optical instrument, so I squandered other good money on another variable. Field testing proved the same experience that I had with the first. Eventually I found a good-natured and generous dealer who took it off my hands for another fixed power. And to add insult to injury in my gullibility, I tried again the third time, and with the same

unhappy result. So now I am off variables altogether. I suppose it is possible that it was just my luck to get three lemons in a row. But I'm not quite gullible enough to believe that. I am going to stay with the fixed power. That has all its internals pretty well fixed, and that stays set when the adjustments are tightened down.

Two Combos — at Least

Some all-around sportsmen play golf in the summer, hunt a little in the fall with guns that gather dust and rust the rest of the year, brave the sharp winds and dangers of the ski slopes in winter and likely fish or indulge in some other form of recreation in spring. But me — I can never get enough of totin' some sort of shootin' stick. So I stay with this hobby the year around. I have never had the satisfaction of really testing out a rifle with all combinations and loads under all sorts of conditions. My regular bread and butter job interferes too much. But there have been, and are, rifles in my case that I have almost the same intimate feelings for that I do for a tried and true friend and hunting buddy. So, when I am out in those open and clean-aired spaces with a rifle that has been a part of many a happy hunt, it gives me that feeling of companionship that I used to get from an old hound dog when I was a teenager growing up in the hills of Pennsylvania. I can think of no better therapy for jangled nerves and troubled mind than to sit in a green meadow, next to a wood lot with the quiet breezes of evening blowing into my troubled face and with a familiar and time-tested rifle cradled in the crook of my arm. Man, I feel I'm in the warm bosom of old mother nature, completely aware that I am a part of this mysterious but friendly universe — peace and solitude! And an occasional chance to look through that scoped sight at the wary crow, the cautious chuck or just some object over on yon landscape. So why hang that gun on the rack for 360 days of the year? Every season calls us afield with trusty arm strung over the shoulder by sling strap. A little more such aloneness makes for efficiency in the office. Time afield or at the bench is never wasted, for it pays the best of dividends.

A person doesn't need to own a whole arsenal for such practical therapy. If a man is wealthy enough or frugal enough he can easily and to good advantage possess a couple of good game rifles. If it's deer, antelope, elk, moose, mountain sheep,

caribou or bear he is after, one rifle is enough if it's mounted with a scope that fits the country his quarry habits. But if he also is a lover of the green, farm meadows of the East, or the rolling prairie lands of the West, he should have a different combination of rifle and scope. The hunting fraternity has won many a black eye from the few who incur the justifiable wrath of the farmer or rancher by taking their thunderous 30-06's out and blast away at chuck or ground squirrels. Lighter and flat trajectory calibers mounted with scopes up to 15 power are more practical and much more acceptable to the land owner. And permission is more readily given for the privilege of wandering over the landowner's meadows if he has the assurance that his livestock isn't going to be blasted into nervous wrecks by the boom of big cartridges.

The 222 Remington is almost ideal for farmland hunting. My favorite is a 22-250 B.D.L. varmintor by Remington mounted with a 7½ power Leupold with tapered cross hair. My favorite reticule is the tapered cross hair, be it for elk or chuck. I got more pure pleasure out of this 22-250 and 7½ power combo than all others I've carried. A few hours afield with this shootin' team and I come home a new man. This kind of hunting is inexpensive, available in almost any part of our broad land, and offers many more shooting days per year than any other. Besides the pleasure of this type of hunting is the training a person gets in stalking game. The so-called short-sighted chuck of our Eastern states is not as blind as is generally supposed. Many times I have been outsmarted by this slow-brained creature, which may only prove the level of my own intelligence. Yet, I do not rate my brightness too far below the average. This old ground hog has taught me some

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techniques of stalking which certainly has made me more alert, more careful into getting into position for a sure shot.

There are the boys who boast of their long shots on these varmints, and I have to admit that I like to brag about a three-hundred yard clean kill, but, when I shoot out across misjudged spaces, hear that tell-tale "whump" when the projectile connects and see the victim crawl away toward the den I feel sick inside. A fast bullet well placed into the shoulder or head end of the target that means an instant kill is more to be commended than that spectacular shot, especially when that long shot means that the bullet has slowed down to the point where it has lost its quick-killing punch, and where the accuracy factor is diminished to the point where the shooter cannot quite control the point of impact. That kind of shooting is a long way from good sportsmanship.

Precision shooting and controlled point of impact is as important for the hunter afield as it is for the contestant at the bench matches. Precision shooting afield means that the game does not suffer. Of course, this means that the man behind the gun must know the anatomy of his quarry. If he doesn't, he has no business "out with a gun."

Now to the Other Combo:

This is for that nimrod who goes for one or more species of big game. Here again the kind of country and the animal hunted dictate the kind of gun a fellow carries. I personally believe in flat-trajectory bullets after shooting enough white tails in Pennsylvania and New York to fill a farmer's barn yard, and an elk, a muley and an antelope in Wyoming. My personal preference is the 7 m.m. magnum. It has enough versatility for any of North American big game with the possible exception of grizzly. Yet, I would not hesitate to tackle

this bruiser with my 7 m.m. Remington magnum loaded to maximum velocity with the 175 grain pointed core-lokt bullet.

The scope I would use on this gun would be determined by the place I planned to hunt. For the wooded areas of the East, where rifles are legal, I would mount my 4x Leupold. If I were going to the long ranges of the West I might use the 7½ Leupold. But for practical reasons of space and carrying the rifle in a scabbard, I believe I would still leave the smaller 4 power on that big caliber.

There are many factors to consider when choosing just the right scope sight. I've mentioned only a few that seem important to me.

Learning to Use the Scope

Anyone can train himself to sight quickly and easily through this kind of sight. I was one of those lucky people that sighted over open-sights with both eyes open. It gave me an edge on my contemporaries in my earlier years. For with both eyes open one's vision is more than doubled. My right eye automatically lined the sights on the game or target while with the left I had complete open vision, and I was able to see instantly where that front bead leveled in on the target. This makes for quick and accurate shooting. Even today, when plinking with an open-sighted 22 I enjoy this advantage.

But, and here is the problem—when I started going for the telescopic sight I had problems. I had to learn a whole new set of instincts. One, to squint my left eye shut and peer through the optics with the right. This called for a bit of concentration for some time. Then came the matter of putting the cross hairs on a moving target. Following a suggestion I read years ago in a outdoor magazine, I would dry fire at a moving target from my den window whether it be a dog running down the street or the wheel of a passing car. If one is going to do this he has to be absolutely certain that there is no live ammo in that gun. But, of course, a guy just can't do this sort of thing with a rim fire rifle. It has to be one of our modern center fires. This practice taught me eventually to use the scope on moving targets with ease and with good results. I doubt that anything bigger than a 4x can be used effectively this way, for any greater magnification is likely to cause too much violent action for the ordinary eye to focus on the moving game. But even on this point or with this method of

sighting the factor of the terrain settles the argument. Certainly a moving muley working his way up a mountain meadow of our western ranges would be no problem through a sight of much higher magnification. Yet, in a thickly wooded area the whole situation changes. We should stay with the low powers there.

Yes, I am convinced that anyone can learn to shoot while looking through a good scope. And he will feel like a better hunter, a better sportsman when he has mastered this art of shooting. Precision shooting, without argument, pays high dividends in personal satisfaction and accomplishment.

A Call for Something New, Something Better

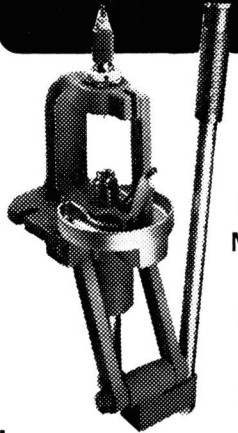
As I stated at the beginning of this article, I am not an engineer nor an optics technician. I'm just one of thousands of shooters who looks through these sights without understanding the engineering principles involved. What I am about to suggest may cause someone to say, "the nut, doesn't he know that's impossible." Before I view my crazy notion, I want to remind such a modern skeptic that some pretty astounding

(Next page please)

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things have been happening in the last few decades that skeptics said couldn't be done. The Wright brothers said they were going to make a flying machine that would ride on air. And man laughed them to scorn. But they did it.

My proposal!? Let's have a breakthrough in telescope sights! Why do we have to have so much hardware anchored to our receivers to get the desired magnification, broad field of vision, and easy sighting qualities? Some ingenious technician should come up with drawing for a smaller, lighter and more streamlined scope. I'm one of those nuts that likes to carry something nice to look at as well as something that shoots straight. Tight groups and dependable point of bullet impact are the first requirements of a rifle. But why not good looks, too? That bulbous looking scope is an affront to our aesthetic sensitivities. Then there is the matter of weight, compactness and general convenience.

If an ingenious group and an adventurous manufacturer would come out with something that lightens the load, improves the looks and effectiveness of the scope sight, with something that was vastly smaller, and with a little publicity, the rifle fraternity would make it a going thing. Look at what is going on in the gun world in relation to the variety of new guns and calibers appearing on the market. Everybody is getting into the act. To prove a point, a man who still carries a model 721 is old-fashioned. Why not the same adventurous spirit in scopes? Certainly someone could change the whole sighting picture. Of course, it takes research and capital outlay. So do new calibers, new cars, new innovations in T.V. sets. Why stick to the old traditional patterns of scope manufacturing? I'm not a shooter who understands the complexities of the "innards" of a scope. I'm just a man that uses them. I think I represent thousands who would like something better, lighter, better to look at and more stable. And something that lessens the burden of toting the load of iron afield.

New England Winter Snowball Shoots Results

The 1967-68 New England Winter Snow Ball shoots began with an icy blast January 7th at the Millerton Gun Club in Millerton, N. Y. Despite

the low temperature hovering around a minus 10° there were 18 shooters turned out with a total of 20 guns. Several of the Heavy Varmint shooters were shooting the new HUNTER Bench course firing inaugurated here for the first time. The Hunter class had a turnout of 6 guns including three new shooters who fired competition for their first time. Scores for the Hunter league are as follows:

Douglas Wormell	178
Myles Hollister	176
Wm. Lewis	165
Don Cyr	153
Manny Lafferty	144
Konrad Muller	23

Hunter shooting was done on the regulation NBRSA Target and relays were alternated with the Heavy Bench Varmint rifles as follows: 14 Shooters including 4 newcomers to the game and with the intense cold, gusty winds and blowing snow the best aggregate of the day went to John Kohler with an .6711" and the small group of the day to Robt. Wade with a .334". First 5 places are as follows:

John Kohler	.6711
Myles Hollister	.7007
Don Cyr	.7213
Tom Briggs	.7925
Chas. Santarpia	.8158

As during the previous four years we have shot for group also in order to add a little spice to the game and give more shooters an opportunity to take home a trophy. Score places for the first 5 places are as follows:

Myles Hollister	385
Robt. Wade	368
Geo. Stannard	268
Don Cyr	262
Peter Kornweiss	361

Total possible score for this match is 400 points based on the 8 targets fired. These are not registered matches due to the lack of necessary equipment and lack of permanent facilities.

The second of the eight scheduled matches for the Snow Ball Bench Shoots started on time with an unusually clear and fairly warm Sunday afternoon, Jan. 21 — the weather was no doubt largely responsible for the large turnout of 31 shooters and 37 guns which included 13 HUNTER class Bench shooters. More and more of the regular Bench rest shooters are taking up the Hunter Class shoots and also some of the Hunter Class shooters are getting into the Varmint Class of Bench Shooting. In the first two matches of this season, we now have a total of 15 new shooters who have not previously shot in Bench competition. Some of these names will no doubt become familiar to the

fraternity during the round of registered shoots this coming summer. Crawford Hollidge even left the Cape area to attend this match and show the newcomers how to shoot the Hunter course which he won by a wide margin with a score of 235. First 5 places for this match are as follows:

Crawford Hollidge	235
Myles Hollister	212
Don Cyr	207
Geo. Stannard	193
Wm. Lewis	189

The Heavy Varmint Bench Class had 24 shooters including several new shooters and two attractive young ladies that are determined to beat their husbands. Winds were whippy and variable though the day was pleasant and the final relay was fired in the dark without the benefit of any lighting. Targets were visible through the scopes but not to the naked eye. Two youngsters ages 16 and 15 turned in quite passable scores — Bruce Baker in the Hunter class with a score of 180 and Gary Moody with a group size of .8091 and score of 370 using a new Rem. 40 XB for the first time. These scores put them approximately in the mid-way on the total list. The smallest group of the day was by Myles Hollister with a .148 and he took first in the group with an aggregate of .4491. Group sizes ran from .4491 for first place to a well graduated opening down the list to 1.0875 for 24th.

First 5 places in the Heavy Varmint are as follows:

Myles Hollister	.4491
Robt. Wade	.4505
Geo. Stannard	.5855
John Kohler	.6038
Peter Kornweiss	.6117
& tied with	
Joe Marinko with same group	.6117

First 5 places in the score records are:

Geo. Stannard	392
Ray Tonnessen	389
Myles Hollister	388
Steve Borsh	383
Charles Santarpia	382

All shooters are awarded the attractive Snow Ball League patch for their jackets with an annual year bar for each year attended. Hunter class shooters have a similar patch with different wording and color and also the annual year bar. From the enthusiastic acceptance of this type of shooting, there is little doubt that this will be continued in the coming years. Art Cornell is in charge of the scoring and assisted by Tom Briggs. Food from the grill is supplied by Mrs. Dewey.